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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/656,128

09/08/2003

Shinichiro Koga

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02/19/2009

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EXAMINER

VO, TUNG T

ART UNIT

PAPER NUMBER

2621

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/656,128	Applicant(s) KOGA ET AL.	
	Examiner Tung Vo	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01/12/2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-31 and 35-40 is/are pending in the application.
- 4a) Of the above claim(s) 1-28 and 32-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-31 and 35-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 08/651,348.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John A. Krause on 02/03/09.

The application has been amended as follows:

In claim (see attachment):

Claim 35, line 1, after "comprising" insert -- ": using an image processing apparatus to perform";

Claim 36, line 1, after "comprising" insert -- ": using an image processing apparatus to perform";

Claim 37, line 1, after "comprising" insert -- ": using an image processing apparatus to perform";

Claim 38, line 2, after "computer-readable" delete "storage" and insert -- "memory";

Claim 39, line 2, after "computer-readable" delete "storage" and insert -- "memory";

Claim 40, line 2, after "computer-readable" delete "storage" and insert -- "memory".

Allowable Subject Matter

1. The indicated allowability of claims 29-31, 35-40 in the Final Office Action dated 09/11/2008 is withdrawn in view of the newly discovered reference(s) to Okazaki et al. (US 6,606,636) and other prior art of records. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Note the amendment above to the method claims does not fulfill the requirements of compliance with the "Tied to" criterion. Recitation of another statutory category in the preamble is not acceptable. The other statutory category should be explicitly recited in the inventive step of the process claims.

4. Claims 35-37 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent and recent Federal Circuit decisions indicate that a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. For example there is no device recited within the claims to accomplish an inventive step(s) of the method claimed.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 29-31 and 35-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okazaki et al. (US 6,606,636).

Re claim 9, Okazaki teaches an image processing apparatus (figs. 1 and 2) comprising:

a signal inputter (INPUT STORAGE PROCESS, DYNAMIC IMAGE STORED of fig.

1), arranged to input an image signal of a frame;

a detector (10 of fig. 1) arranged to detect an image change by comparing the inputted image signal with a reference image signal (the combination of figures 3-5); and

a storage unit (e.g 14 of fig. 1), arranged to update the reference image signal by storing the inputted image signal as the reference image signal on a frame basis when said detector detects the image change (note a storage means (14 of fig. 1) for storing the moving image with the extracted first characteristic scene change sequence for the moving image, which would obviously suggest that storage stores the input image when detected image is change), and not to update the reference image signal when said detector detects that there is not an image change,

wherein said detector calculates a pixel value difference between each pair of corresponding pixels using the image signal and the reference image signal, determines,

if a corresponding pixel value difference is larger than a first threshold value, that a pixel change has occurred, and determines (e.g. fig. 4, Note $G(x,y) > T1$),

if the number of pixels having undergone changes in an entire frame is larger than a second threshold value, that a frame change has occurred (e.g. fig. 4, $G(x,y) > T2$).

wherein said detector divides the image signal and the reference image signal into a plurality of blocks, calculates the sum total of pixel value differences between corresponding pixels using the image signal and the reference image signal in units of blocks (FIG. 3 shows a method in which the scene change is determined when a total sum of difference values of image data of the same coordinates of two time-continuing frame images, which is obtained for the whole frame, exceeds a certain threshold value (T), this would obviously be applied to the method of figure 4), determines,

if the sum total is larger than a first threshold value, that a corresponding block has undergone a change, and determines (e.g. fig. 4, Note $G(x,y) > T1$),,

if the number of blocks having undergone changes in an entire frame is larger than a second threshold value, that a frame change has occurred (e.g. fig. 4, Note $G(x,y) > T2$),;

wherein said detector divides the image signal and the reference image signal into a plurality of blocks, calculates a pixel value difference between each pair of pixels corresponding to the image signal and the reference image signal (e.g. $G(x,y)$ of fig. 4), determines,

if each pixel value difference is larger than a first threshold value and a corresponding pixel which has undergone changes in a block is larger than a second threshold value, that the block of the corresponding pixel has undergone a change (e.g. fig. 4, Note $G(x,y) > T1 > T2$), and determines,

if the number of blocks having undergone changes in an entire frame is larger than a third threshold value, that a frame change has occurred (e.g. Fig. 5, $H(i) > T$, wherein T would obviously be considered as third threshold).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Callahan et al. (US 5,664,029) discloses method of disregarding changes in data in a location of a data structure based upon changes in data in nearby locations.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung Vo whose telephone number is 571-272-7340. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tung Vo/
Primary Examiner, Art Unit 2621